

## BLACKISH CRANE-HAWK

BY GEORGE MIKSCH SUTTON

THE hawks of the New World genus *Geranospiza* are among the most remarkable of extant falconiform birds. They are light-weight, middle-sized hawks with small head, rather small bill, long, slender legs, fluffy plumage, rounded wings, and long, broad tail. Their leg feathering is without "flags." Their toes are short—especially the outer. The scales of the tarsi are so fused as to present an almost smooth surface in front and on the outer side. The legs are "double-jointed." In reaching down through roots or brush or into holes after prey, *Geranospiza* may flex its tibiotarsal joints either forward or backward. This adaptive character it has in common with *Gymnogenys* of Africa and Madagascar (Friedmann, 1950. *U.S. Natl. Mus. Bull.* 50, part 11, p. 516).

The only species of the genus *Geranospiza* known to me from personal field-experience is the Blackish Crane-Hawk (*G. nigra*), a bird currently believed to breed from central Tamaulipas and extreme southern Sonora southward through Middle America and South America west of the Andes to southwestern Ecuador and Puna Island (Peters, 1931. "Check-List of Birds of the World," 1:268). Presumably the species is non-migratory throughout its range.

The Blackish Crane-Hawk is about 18–20 inches long, the female being considerably larger than the male. In unworn adult plumage it is slaty black with a bluish or purplish bloom. The base of the tail is white, the very tip is grayish white, and there are two broad white bars additionally, the more distal being somewhat the less distinct because, especially on the outer webs of the feathers, the white is washed with gray. Narrow white tipping of the plumage of the under parts produces a thin barring especially noticeable on the tibial part of the legs. The nape plumage is white basally. In some specimens the chin, throat, and loreal feathers are more or less white. The under-wing varies: in some individuals the remiges and coverts are spotted and barred with white; in others the white is reduced to a series of squarish spots, one on the inner web of each of the four or five outer primaries. The eyes are bright red; the cere, eyelids, and mouth-corners dull gray; the bill black with bluish cast; the tarsi and toes orange or red-orange; the claws black.

In immature birds the forehead, superciliary area, auriculars, chin, upper throat, and under parts in general are more or less streaked with buffy white; the plumage otherwise is brownish black. Dickey and van Rossem (1938. *Field Mus. Nat. Hist. Zool. Ser.* 23:130) state that the "juvenal plumage" is worn "until the second fall," and describe the eye-color of a several-months-

old bird taken in El Salvador in February as reddish brown; of a "fully grown juvenile (recently from nest) in August" as orange.

My friend William J. Sheffler, of Los Angeles, has been good enough to put at my disposal a summary of his really considerable experience with this all but unknown hawk in southern Sonora. In the Sheffler Collection is a nestling female (WJS 2937) taken at a "presumed age of five weeks" and still unable to fly, at 2100 feet elevation in the Tarahumar Mountains, near Guirocoba, on June 4, 1950. Mr. Sheffler describes this specimen thus: "Forehead, supercilium, chin and throat white; crown and nape black, the white basal part of the feathers showing conspicuously; cheeks and ear coverts light gray. Upper part of body black, the wings with white markings much as in the adult. Upper tail coverts black, each with a white bar; rectrices black with white tip and a broad bar near the middle, this bar being grayish white in the middle pair and in the five other pairs buff on the inner web to gray on the outer web. The primaries, secondaries and rectrices are only about half grown. The under parts are mottled with black and cinnamon buff (Tawny Olive of Ridgway), the vent and under tail coverts being pure Tawny Olive. In the living bird the eyes were yellowish red, the bill black, the legs and feet yellowish orange, much lighter than in the adult." This last statement is entirely valid, for Sheffler collected the male parent also and was able to compare the two specimens directly.

The Blackish Crane-Hawk inhabits tropical lowlands. Sturgis (1928, "Field Book of Birds of the Panama Canal Zone," p. 131) says that it lives "near marshes and ponds in heavy forest." Dickey and van Rossem (*op. cit.*, p. 129), describe it as "primarily a bird of swamp forest and mangrove lagoons . . . seldom found away from the immediate vicinity of water" in El Salvador. M. A. del Toro (1952, "Los Animales Silvestres de Chiapas," p. 121) says that it inhabits the banks of rivers and lakes. Carriker (1910, *Ann. Carnegie Mus.*, 6:454) says that in Costa Rica it "is always found in the vicinity of water, usually a sluggish lagoon or pond." J. C. Phillips (1911, *Auk*, 28:73) has reported it from Cañon Guiaves, in the hill district near Victoria, Tamaulipas. The elevation of this locality is not known to me, but I believe it to be considerably greater than that of the Corona and Sabinas, Tamaulipan rivers along which Thomas D. Burleigh, John B. Semple and I found the species in the early spring of 1938 (Sutton and Burleigh, 1939, *Occ. Pap. Mus. Zool. Louisiana State Univ.*, 3:27). Sumichrast (1876, *U.S. Natl. Mus. Bull.* 4:40), who reports *G. nigra* from "both sides of Mexico," has this to say of its habitat and behavior: "It never leaves the woods, where, gliding with rapidity among the thickets of vines, it gives chase to the small lizards, tree-frogs, insects, etc."

In southern Sonora the species may prefer to live near streams, but its

habitat there has very little water during much of the year. No mere accident is van Rossem's (1945. *Occ. Pap. Mus. Zool. Louisiana State Univ.*, 21:60) choice of words when, in discussing habitat, he writes of "Tropical zone riparian associations" rather than of lowland woods near water. Mr. Sheffler's comments on the bird's altitudinal distribution and ecology in southern Sonora merit close study. These read: "I have never seen this bird at much greater elevation than 2000 feet. On the other hand, I have never encountered it below 1500 feet, although I have in my collection an immature male taken by van Rossem at Tesia, in the lower Mayo River valley, June 19, 1937. Tesia is 16 miles east of Navojoa, and its elevation is about 200 feet.

"I have observed this bird hunting over the land like a Marsh Hawk (*Circus cyaneus*) only in the winter months. In the spring and summer I have seen it hunting quietly in the shelter of large trees along streams and cienagas. There is little water about Guirocoba, the area being for the most part arid tropical. Elevation at the Guirocoba ranch-house, from which point I have several times observed the bird, is 1540 feet."

Dickey and van Rossem (*op. cit.*, pp. 129-130) consider the Blackish Crane-Hawk "a more active bird" than either the Urubitinga (*Hypomorphnus urubitinga*) or the Mexican Black Hawk (*Buteogallus anthracinus*), "with both of which it may frequently be found . . ." Discussing its behavior, they say that it quarters a meadow in the manner of a Marsh Hawk. "A burning pasture is a sure attraction, and it often hunts through the smoke right behind the fire line."

Mr. Sheffler had an interesting experience with a Blackish Crane-Hawk near the Guirocoba ranch-house on November 17, 1944. That day, from the south front of the house, he saw a crane-hawk about a quarter of a mile away beating back and forth not far above ground, looking for prey. The principal vegetation of the hunting-ground was small, thorny, tropical plants, but there was a scattering of large mesquite-like trees, several large pitahaya cactus plants, and some grass. Some years previously the area had been planted to cotton, peanuts, and grain, but it had returned to a wild state. Here and there were rock mounds, the rocks ranging from the size of a man's head to three or four times that large, the mounds being about three feet high at the peak. Mr. Sheffler continues: "While I was attempting to stalk the bird, it lit on the side of one of these rock mounds, much out of gun-range. As I watched it through my glasses it jumped about the mound in the manner of some sort of mammal. Reaching its foot into the crevices, it finally came out with what appeared to be a large lizard. I could not stalk the bird from my position for there was no cover, but I continued to watch it. A minute or so after it had pulled its prey from the rocks, Dr. Ralph A. Woods, who had approached from the opposite side, shot the hawk from the concealment of a

small wash. We found that it had caught an iguana about eleven inches long. Instead of attempting to swallow this prey, it had promptly cut through the back, just behind the front legs, to get at the soft parts. In the hawk's stomach we found parts of at least two more lizards."

An adult female specimen collected by Thomas D. Burleigh along the Río Corona, near the village of Güemes, Tamaulipas, on February 20, 1938, had eaten "a small green lizard" (Sutton, 1951. "Mexican Birds," p. 131). This crane-hawk specimen served as the model for our colored frontispiece.

Wetmore (1943. *Proc. U.S. Natl. Mus.*, 93:241) gives us this account of his meeting with this species in southern Veracruz: "On April 4, 1939, I shot a male at the Arroyo Corredor. As I moved quietly among the trees I suddenly saw its dark form clearly through the branches as it perched 15 feet from the ground in heavy, open forest. It was eating a large orthopteran."

Mr. Sheffler examined the stomach- and crop-contents of four of the five Blackish Crane-Hawk specimens (three adult, two immature) now in his collection. The stomach of an adult (WJS 2261, sex?) taken by Sheffler himself at Guirocoba ranch on May 21, 1945, contained "parts of a small snake and remains of lizards." The crop of an adult male (WJS 2934) taken by Sheffler at a nest in the Tarahumar Mountains, near Guirocoba, was "very full of lizards and parts of small snakes." This male was the parent of the well-feathered nestling described in detail above. The stomach of the nestling was empty, so the old bird must have been about to feed its progeny.

Lovie M. Whitaker, of Norman, Oklahoma, and Edna W. Miner, of Houston, Texas, observed the feeding behavior of a Blackish Crane-Hawk along the Río Corona, in Tamaulipas, not far from the spot at which T. D. Burleigh took the specimen above referred to. Camped near the place at which the Brownsville-to-Victoria highway crosses the river, the two women were looking for birds. The date was August 15, 1949. A black hawk, perched on a horizontal branch only eight or ten feet from the ground near the trunk of a giant cypress (*Taxodium distichum*) on the north side of the river, directly opposite from them and about 30 yards away, they identified as an adult *G. nigra*. The bird seemed little concerned over their presence, and they watched it for fully twenty minutes. Mrs. Whitaker has furnished me with a full account of the experience, from which I quote:

"The hawk's lax, slaty black plumage had a pronounced bloom about the foreparts. We noticed the Chinese red of the eyes; the bright orange-yellow of the long tarsi and toes; the small gray bill and gray cere; the two white bars in the long, white-tipped tail; and the lacy white tipping of the leg feathers, breast feathers, and under tail coverts. When we "squeaked," the bird turned its head and stared at us intently, but its apathetic demeanor did not change. At times it lifted the feathers of its crown and nape into a loose,

thin crest. Then it depressed the median crown plumage, leaving certain feathers at either side standing as a short, slightly recurved tuft above the back of each eye. This gave it a somewhat 'horned' appearance.

"Wishing to see the manner of flight this apparently sluggish bird might have, we 'shooed' it—but it would not fly.

"When it flew of its own volition we were astonished. It sprang lightly upward two feet to an opening in the trunk where it flapped its wings, struggling to hold position. When presently it came to rest, its left wing was spread across a small branch and its toes were gripping the bark just below the opening. It now thrust its head well into the cavity. When it withdrew its head, we noticed the throat muscles working as in swallowing. The bird now returned to its original position on the branch below, again facing us. This feeding procedure was repeated four or five times. Between feedings the bird gave a low, whining, nasal *kaah* several times. When fluttering into feeding position close against the tree, it displayed the beautiful pattern of the tail and the bold barring and mottling of the under-wings.

"When the hawk had finished feeding, we threw sticks at it and called out, still hoping to watch its flight. It did not budge! Attracted by other birds, we moved up-river, expecting to keep the hawk in sight. But it slipped off without our seeing it go. We did not examine the hole in the tree and can only guess that the hawk may have been robbing a bird's nest or eating wasp or bee larvae, or possibly ants. Certainly no small bird dived at it, or scolded it, while we were watching it."

As for the Blackish Crane-Hawk's nest, eggs, and nesting habits virtually nothing has thus far been published. The following information concerning eggs and the nests from which they were collected is, therefore, of great interest. This information has been furnished me by Mr. Sheffler, who collected the eggs.

"Nest 1. June 4, 1947. Two fresh eggs, plain white, each  $53 \times 38$  mm. Two miles west of Mirasol ranch, southeastern Sonora, at 1800 feet elevation in lowlands below ranch. In Mexican cypress tree in almost dry wash, although some water was running from the larger pools. Nest against main trunk, at highest possible point, and more than 50 feet from ground; like that of Cooper's Hawk (*Accipiter cooperii*) but of smaller sticks, vine stalks, and weeds than that species would use; a few green leaves of wild fig in lining, most of these still clinging to small branches. Very little water anywhere in this area for nine months of the year.

"Nest 2. May 12, 1949. Two eggs, incubated 7-10 days, plain white,  $52 \times 43$  and  $52 \times 42$  mm. At 1800 feet elevation about one mile northeast of Guirocoba ranch-house, southeastern Sonora. In very tall Mexican cypress growing in creek. Creek, running through granite wash, had many pools in



May, but in June was almost dry. These water-courses have, in spots, heavy stands of cypress, large wild fig, morning-glory trees, kapoc, mahogany, and many small Sonora palms, all growing within a few feet of the water itself. Farther back from the water grow thorny, deciduous tropical plants, the giant pitahaya cactus, and other smaller forms of cactus.

"Nest 3. June 3, 1950. One egg, almost ready to hatch, white with several small, distinct spots and four larger, distinct blotches, color Sepia (Ridgway),  $50 \times 40$  mm. At 1650 feet elevation, one and one-fourth miles east of Guirocoba ranch-house, southeastern Sonora. More than 50 feet from ground in very tall Mexican cypress, far out on long limb. Made of rather small sticks and vine stalks lined with small pieces of vine and many green leaves, most of them adhering to small branches. Deeply cupped. Parent bird flushed but not collected.

"Nest 4. June 4, 1950. One young bird about five weeks old [see above] and one egg, the latter plain white,  $51 \times 41$  mm., and addled. At 2100 feet elevation in Tarahumar Mountains, five or six miles southeast of Guirocoba ranch-house, southeastern Sonora. In very high Mexican cypress growing in small dry wash; at least 50 feet from ground, well out on almost horizontal branch. Nest about size of Cooper's Hawk's, but made of smaller sticks than that species would use. Lined with small twigs, grass and weed stalks, some of the twigs bearing green leaves. Remains of coral snake and two lizards along outer edge of nest. Nestling, egg, and male parent collected."

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